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ACE2 Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	120-135	Rabbit	#Q9BYF1	59272

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	ACE2 Antibody recognizes endogenous level of glycosylated ACE2 protein. This antibody also cross-reacts with 55 and 75 kDa proteins of unknown origin in some cells.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ACE2 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	ACE2 is a carboxypeptidase that catalyses the conversion of angiotensin I to angiotensin 1-9, or of angiotensin II to the vasodilator angiotensin 1-7 (1). ACE2 is a critical component in the renin-angiotensin system (RAS). ACE2 is predominantly expressed in vascular endothelial cells of the heart and kidney and Leydig and Sertoli cells of the testis (2,3). The unique expression pattern of ACE2 determines its essential role in the regulation of cardiovascular and kidney functions, as well as fertility. ACE2 protein is localized mainly in the extracellular space with its carboxy terminal end attached to the membrane via its transmembrane domain. Active ACE2 enzyme is secreted by cleavage at the amino terminus. Research studies have shown that ACE2 expression is elevated in human failing heart (4). ACE2 has also been identified as the receptor for SARS and SARS-CoV-2 coronaviruses (5-7).	
Background References	1. Schmidt, B.L. et al. (2000) <i>J Clin Microbiol</i> 38, 1279-82. 2. Boehm, M. and Nabel, E.G. (2002) <i>N Engl J Med</i> 347, 1795-7. 3. Douglas, G.C. et al. (2004) <i>Endocrinology</i> 145, 4703-11. 4. Goulter, A.B. et al. (2004) <i>BMC Med</i> 2, 19. 5. Li, W. et al. (2005) <i>EMBO J</i> 24, 1634-43. 6. Hoffmann, M. et al. (2020) <i>Cell</i> 181, 271-280.e8. 7. Lan, J. et al. (2020) <i>Nature</i> 581, 215-20.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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